

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A device for processing the surface of a container, in which the processing is accomplished by a low-pressure plasma, by excitation of a reaction fluid with microwave electromagnetic waves, the device for processing comprising:

an enclosure in which the container is placed, the container having an elongated neck portion, the enclosure being made of a conductive material, inside of the enclosure, microwaves are introduced by a coupling device;

a tube which surrounds the container to delimit an internal cavity of the enclosure;

a device extending into the enclosure to hold the neck of the container;

wherein the enclosure is a cylinder and its central axis is a main axis of the container, such that the coupling device has a wave guide tunnel which is disposed outside of the tube and which extends towards the main axis of the enclosure and which is provided within a window of a wall of the enclosure, said wave guide tunnel projected on a plane tangent to the enclosure and is rectangular in shape, the smaller dimension of the rectangle corresponds to its dimension along the direction of the axis of the enclosure, and

wherein the inside diameter of the enclosure is such that the microwaves are propagated in the enclosure primarily according to a mode in which an electrical field, resulting from the propagation of the microwaves, has an axial symmetry with respect to the central axis of the enclosure.

2. (currently amended): The device according to claim 1, wherein ~~when~~ the enclosure is a predetermined size such that if microwaves are introduced into the enclosure in the absence of a container, the variation of intensity of the electrical field has two maximums on one radius of the enclosure.

3. (previously presented): The device according to claim 2, wherein the microwaves have a frequency of 2.45 GHz, and the inside diameter of the enclosure is between 213 and 217 mm.

4. (currently amended): The device according to claim 1, wherein ~~when~~ the enclosure is a predetermined size such that if microwaves are introduced into the enclosure in the absence of a container, the variation of intensity of the electrical field has three maximums on one radius of the enclosure.

5. (previously presented): The device according to claim 4, wherein the microwaves have a frequency of 2.45 GHz and the inside diameter of the enclosure is between 334 and 340 mm.

6. (currently amended): The device according to claim 1, wherein ~~when~~ the enclosure is a predetermined size such that if microwaves are introduced into the enclosure in the absence of a container, the variation of intensity of the electrical field has four maximums on one radius of the enclosure.

7. (previously presented): The device according to claim 6, wherein the microwaves have a frequency of 2.45 GHz and the inside diameter of the enclosure is between 455 and 465 mm.

8. (previously presented): The device according to claim 1, wherein the wave guide tunnel has a rectangular cross section.

9. (currently amended): The device according to claim 8, wherein the microwaves have a frequency of 2.45 GHz, and the dimensions of the cross section of the wave guide tunnel are ~~substantially~~ 43 mm along the direction of the main axis of the enclosure and ~~substantially~~ 86 mm along a direction perpendicular to the main axis.

10. (currently amended): The device according to claim 1, wherein the container ~~comprises a processed inner face~~ reaction fluid is introduced into the container in such a way that the processing is applied to the inner face of the container.

11. (currently amended): The device according to claim 1, wherein the container ~~comprises a processed outer face~~ reaction fluid is introduced into the enclosure, outside the container, in such a way that the processing is applied to the outer face of the container.

12. (currently amended): The device according to claim 1, wherein ~~inside the enclosure, a cavity is delimited by the tube comprises~~ a wall made of a material that is appreciably transparent to the microwaves, and the container is received inside the cavity.

13. (currently amended): The device according to claim 1, wherein the container comprises a material ~~is deposited~~ by the low-pressure plasma.

14. (new): The device according to claim 1, wherein the tube is made of quartz.

15. (new): A device according to claim 1, wherein the wave guide protrudes past a wall of the enclosure towards the container.

16. (new): The device according to claim 1, wherein the container is disposed so that its bottom is spaced apart from the enclosure.

17. (new): The device according to claim 1, wherein the wave guide is in the form of a rectangle having a uniform rectangular cross section extending to a back wall of the wave guide.

18. (new): The device according to claim 1, further comprising a generator which produces the microwave electromagnetic waves, and the generator is disposed to protrude into the wave guide tunnel.

19. (new): The device according to claim 1, wherein the tube is coaxially disposed with respect to the enclosure.